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TITLE: Bone Mineral Density, Sex Steroid Genes, Race and

Prostate Cancer Risk

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The goal of this project is to determine whether bone mineral density (assumed to be an integrated marker of set steroid hormone exposure) is a risk factor for prostate cancer; and (2) to identify prostate cancer susceptibility alleles among genes in the sex steroid pathway. To address these aims, we are undertaking a case-control study of African American and Caucasian men in Pittsburgh, PA and Baltimore, MD. Cases are 100-150 African American and 150 Caucasian men with histologically-confirmed prostate cancer. Controls are age and race frequency-matched men who have a PSA < 3.0 ng/mL. Hip, spine and total body BMD is measured by Dualenergy X-ray Absorptiometry (DXA). Blood is used to obtain DNA. Polymerase Chain Reaction (PCR) techniques will be used to determine allelic distributions of genotypes for sex steroid metabolism, biosynthesis and action genes. Risk factor data are obtained by an in-person interview. Pathology information will be collected using standardized medical abstraction and all pathology will be confirmed by a central pathologist. Upon completion recruitment and data collection, we will evaluate the role of BMD and candidate genotypes in prostate cancer risk by race. We will further examine the interaction between BMD and genotypes to evaluate the hormonal environment – gene interaction and its effect on prostate cancer risk.

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## **Table of Contents**

Cover	1
SF 298	2
Table of Contents	3
Introduction	4
Body	4
Key Research Accomplishments	6
Reportable Outcomes	6
Conclusions	6
References	6
Appendices	9

#### INTRODUCTION:

The goal of this project is to determine whether bone mineral density (assumed to be an integrated marker of sex steroid hormone exposure) is a risk factor for prostate cancer; and (2) to identify prostate cancer susceptibility alleles among genes in the sex steroid pathway. To address these aims, we are undertaking a case-control study of African American and Caucasian men in Pittsburgh, PA and Baltimore, MD. Cases are 100-150 African American and 150 Caucasian men with histologically-confirmed prostate cancer. Controls are age and race frequency-matched men who have a PSA < 3.0 ng/mL. Hip, spine and total body BMD is measured by Dual-energy X-ray Absorptiometry (DXA). Blood is used to obtain DNA. Polymerase Chain Reaction (PCR) techniques will be used to determine allelic distributions of genotypes for sex steroid metabolism, biosynthesis and action genes. Specifically, we are looking at polymorphisms in the androgen receptor, estrogen receptor, aromatase, 5-alpha reductase and CYP17 genes. Risk factor data are obtained by an in-person interview. Pathology information will be collected using standardized medical abstraction and all pathology will be confirmed by a central pathologist. Upon completion recruitment and data collection, we will evaluate the role of BMD and candidate genotypes in prostate cancer risk by race. We will further examine the interaction between BMD and genotypes to evaluate the hormonal environment – gene interaction and its effect on prostate cancer risk.

#### **BODY:**

In this section, we describe our accomplishments according to the Work Plan originally approved:

Task 1 Preparation for Study, Months 1-6:

- a. Obtain remaining IRB approvals
  - approval received from University of Pittsburgh and Maryland, but not from the DOD to commence recruitment in Baltimore
- b. Hire Pittsburgh project manager
  - Ms. Pamela Overberger hired
- c. Finalize agreements with Baltimore coordinator
  - contracted with UofMD Center for Clinical Trials for services of Ms. Jennifer De Santo two days per week.
- d. Finalize all instruments
  - done (Appendix A)
- e. Train interviewers to perform patient interviews using the instruments
  - doned

Task 2 Preparation for Data Entry, Months 6-12:

- a. Implement computerized data entry forms (interview, anthropometric, physical activity, pathology, DXA, and laboratory assay) in PoP
  - implementation in TeleForm completed

Task 3 Recruiting of Subjects and Obtaining of Data, Months 6-30

- see tables 1-3 for summaries to date

#### **Overall Study Progress:**

We hired Pamela Overberger, MS, as the overall study coordinator. Ms. Overberger also serves as the Pittsburgh recruiter and interviewer. Drs. Modugno, Weissfeld and Ms. Overberger finalized the study

instruments (Appendix 1). Instead of using PoP as originally planned, we decided to use TeleForm, an automatic scanning data entry system. This enables us to scan data immediately and will save us time in data entry towards the end of the study period. Ms. Overberger developed the study Manual of Operations and works with all organizations to maintain study approval.

## Pittsburgh Progress:

We obtained IRB approval from the University of Pittsburgh to commence recruitment of subjects in Pittsburgh. Recruitment began in February 2002. Cases are recruited from all newly diagnosed cases of prostate cancer seen in the practice of Dr. Joel Nelson. Controls are men who have participated in a population-based prostate cancer screening trial and are frequency matched to cases by age and race. The summary of recruitment to through August 2002 is in Table 1. We recruit approximately 4 men per week in Pittsburgh (2 cases, 2 controls), which is ahead of the anticipated recruitment schedule. Because interview data is scanned in weekly, we are able to provide interim data analyses. Table 2-3 summarizes the baseline data on recruited subjects through August 2002.

## **Baltimore Progress:**

We obtained IRB approval from the University of Maryland in August, 2002. This was later than anticipated and has put our recruitment behind. Moreover, the DOD Human Subjects Committee has not yet approved adding Baltimore as a site for this study and we are therefore unable to commence recruitment of African Americans in Baltimore.

Nonetheless, in September 2002, Drs. Modugno and Weissfeld visited the Baltimore site to meet with the Baltimore PIs (Marc Hochberg, MD and Richard Alexander, MD) and study team. A part-time Baltimore study coordinator was hired (Ms. Jennifer DeSanto) through the University of Maryland Center for Clinical Trials. Ms. DeSanto will work with Dr. Alexander's staff in the urology clinic to recruit eligible African American cases. Ms. DeSanto will work two days per week (Thursday and Friday) when the urology clinic at the Baltimore VA takes place. Ms. DeSanto is paid only for the days she works and since recruitment has not begun, we have no costs associated with Ms. DeSanto to date. Ms. DeSanto received all the study instruments and instructions. During the first 2-3 weeks of recruitment, Ms. Overberger will go to Baltimore to provide onsite training of Ms. DeSanto (consenting and interviewing subjects).

Because of the late start of recruitment in Baltimore, Dr. Modugno has authorized that funds from Y1 of this grant that were to be used to support recruitment in Baltimore be set aside. This will ensure the availability of funds to continue recruitment in Baltimore after the 3 year study period ends (if need be). These funds will cover the cost of the study coordinator in Baltimore and all the associated study costs (DXAs, etc).

Once we begin recruitment in Baltimore, cases will be recruited from the VA urology clinic during their weekly clinic schedule (Thursdays and Friday mornings). Controls will be recruited from Dr. Hochberg's ongoing study of BMD in African American men. Controls will be frequency matched by age to cases.

#### **Exclusion Criteria**

The following are the criteria used to exclude men from participation in this study.

- $\blacksquare$  <40 or >80 years of age
- Inability to consent to medical procedures.

one of which is labeled with a fluorescent dye (FAM, HEX or TET; Research genetics, Huntsville, AL). The products are resolved on the ABI 377 automated DNA sequencer (Applied Biosystems, Foster City, CA) and the resulting gel images are analyzed using the GENESCAN software package. These protocols are standard in Dr. Ferrell's lab. Genotypes are assigned by two independent readers by directly comparing test samples to sequence-verified control samples run on the same gel. Conflicts are resolved by repeat genotyping.

We have tested the laboratory assays on a sample of specimens early in our recruitment. The assays appear to be working.

#### **BMD Measurments**

Hip, spine and total body BMD will be measured by Dual-energy X-ray Absorptiometry (DXA) using a Hologic QDR-4500A (Hologic, Inc., Waltham, MA) in the Laboratory of Dr. Susan Greenspan. Quality control is assessed by daily quality control scans with the phantom provided by the manufacturer. We will also have a subset of scans (10%) reanalyzed by Synarc, Inc. (Bedford, MA), which provides quality control for large scale studies, including several of Dr. Greenspan's studies. All DXA results will be recorded on a standard study form for data entry.

#### Problems encountered and measures taken:

The major problem we have encountered is obtaining IRB approval for this study at Baltimore and the DOD. We have already received IRB approval in Baltimore. We are working with the DOD to receive approval to add Baltimore to the study so that we can begin recruitment at that site.

#### **KEY RESEARCH ACCOMPLISHMENTS:**

The study is well underway with all the components in place. We forsee successfully completing recruitment of Caucasians in Pittsburgh well within the study period. We anticipate successfully completing African American recruitment, although we anticipate that this may require an additional year due to the delay in recruitment in Baltimore because of the delay in receiving DOD IRB approval to add Baltimore as a site for this study.

#### REPORTABLE OUTCOMES:

None to date

### **CONCLUSIONS:**

We are pleased with our progress and forsee the successful completion of this project. We are working with the DOD to receive IRB approval to begin recruitment in Baltimore.

#### REFERENCES:

None

#### APPENDICES:

Interview Questionnaire

Table 1: Summary of CASE and CONTROL Recruitment in Pittsburgh 2/01/02-8/31/02

	1 11135 U1 gil 2/01/02 0/01/02			
	AA	Caucasian	Total	
<b>Total CASES</b>	13	98	95	
Eligible Cases	13	85	83	
Agreed to Contact	13 (100%)	74 (87%)	77 (93%)	
Screened Enrolled Scheduled Ineligible Declined Excluded	10 8 (80%) 0 (0%) 2 (20%) 2	65 45 (69%) 5 (8%) 15 (23%) 8 7	72 49 (68%) 6 (8%) 17 (24%) 10 7	
CONTROLS: Screened Enrolled Scheduled Ineligible Declined Excluded	10 8 (80%) 0 (0%) 2 (20%) 2	33 27 (82%) 3 (9%) 3 (9%) 0 3	43 35 (81%) 3 (7%) 5 (12%) 2 3	

Table 2: Age and Race Distribution of Cases and Controls Recruited in Pittsburgh 2/1/02-8/31/02.

	Caucasian	Caucasian	African- American	African-American
Age Range	Cases	Controls	Cases	Controls
40-44	1			3
45-49	1			1
50-54	10		2	1
55-59	12	13	2	3
60-64	11	9	2	
65-69	5	5	1	
70-74	4	1	1	
75-79	1			
Total	45	28	8	8

Table 3: Summary Demographic Statistics on Cases and Controls (as of 8/16/02)

	Case (n=43)	Controls (n=35)		
Age (years) (mean)	59.9	58.6		
BMI (kg/m2) (mean)	27.8	31.1		
Race				
AA	8	8		
Caucasian	41	27		
BMD (g/cm2)				
(mean)	1.01	1.04		
Hip	1.07	1.11		
Spine PA	1.18	1.20		
Total				





#### General Information

The first section asks about the riview, you have the riview you uncomfortable, or to expense.	ight to refuse to an	nswer any question that makes
StudyID		Date
		1 1
1. Where were y	you born?	Case or Control?  O Control  O Case
State		Recruitment Site: O Pittsburgh UPMC
Country		O Pittsburgh VA
		O Baltimore VA

2. What is the race or ethnic background of each of your grandparents?

Father's father	Father's mother	Mother's father
O African-American	O African-American	O African-American
O Afro-Carribean	O Afro-Carribean	O Afro-Carribean
O Hispanic/Latino	O Hispanic/Latino	O Hispanic/Latino
O White	O White	O White
O Asian	O Asian	O Asian
Other	O Other	Other
O Unknown	O Unknown	O Unknown

Mother's mother

- O African-American
- O Afro-Carribean
- O Hispanic/Latino
- O White
- O Asian
- O Other
- O Unknown



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3. What is the highest grade or level of schooling you completed?
Oless than 8 years
○8 through 11 years
O 12 years or completed high school
O Post secondary vocational or technical training
O Some university or college
O College graduate
O Postgraduate
O Unknown
4. What is your current marital status?
O Never married
O Married or living as married
O Widowed
O Divorced
O Separated
5. How tall were you (without shoes) at age 18 (tallest adult height)?
feet inches
6. How much did you weigh when you were born?
O Less than 5 pounds
O 6 pounds to 7 pounds, 15 ounces
08 pounds to 9 pounds, 15 ounces
O 10 or more pounds
O Unknown
7. What was your weight at the age of 18?
pounds



O Yes

O Unknown

8. What was your weight at about age 50? pounds
9. What was your maximum adult weight? pounds (The most you have weighed since the age of 18)
10. How old were you when you reached that maximum weight?
○18-29 years old
○ 30-39 years old
○40-49 years old
○ 50-59 years old
○ 60-69 years old
11. What was your minimum adult weight? pounds
(The least you have weighed since the age of 18)
12. How old were you when you reached that minimum weight?
○18-29 years old
○30-39 years old
○40-49 years old
○50-59 years old
○ 60-69 years old
13. When you were born, were you: O Full term (about 9 month pregnancy)
O Four or more weeks premature
O Unknown
14. When you were born, were you a twin or triplet? ○ No



- 15. Did your mother breast feed you when you were a baby?

  ONO OYes ODon't know
- 16. Did your mother smoke when she was pregnant with you?

  ONO OYes ODon't know
- 17. What is your birth order?

  Ofirstborn Osecond or more Odon't know
- 18. What hand do you write with?

  Oleft Oright Oboth
- 19. Which pair of pictures best describes your hair pattern at age 30?
  - O Picture 1-1 O Picture 2-6
  - O Picture 1-2 O Picture 2-7
  - O Picture 2-3 O Picture 3-2a
  - O Picture 2-4 O Picture 3-3
  - O Picture 2-5 O Picture 3-3a
  - O Picture 2-5a O Picture 3-4a
- 20. Which pair of pictures best describes your hair pattern at age 40?
  - O Picture 1-1 O Picture 2-6
  - O Picture 1-2 O Picture 2-7
  - O Picture 2-3 O Picture 3-2a
  - O Picture 2-4 O Picture 3-3
  - O Picture 2-5 O Picture 3-3a
  - O Picture 2-5a O Picture 3-4a



StudyID												

The following section asks about your personal medical history.

#### Medical History

1. Has your doctor ever told you that you have or have had:

If yes, are you currently being treated for this condition by a doctor?

A heart attack:	O No		
	O Yes	$\bigcirc$ No	O Yes
Angina:	O No		
	O Yes	$\bigcirc$ No	○ Yes
Congestive heart failure:	O No		
	O Yes	$\bigcirc$ No	O Yes
Other heart disease:	O No		
	O Yes	$\bigcirc$ No	O Yes
Stroke:	O No		
	O Yes	O No	O Yes
Diabetes:	O No		
	O Yes	O No	O Yes
Parkinson's disease:	O No		
	O Yes	O No	O Yes
Dementia or Alzheimer's:	O No		
	O Yes	O No	() Yes
Other neurologic disease:	O No		
	O Yes	O No	O Yes
Depression:	O No		
	O Yes	O No	○ Yes
COPD:	ONo		
	O Yes	O No	○ Yes
(Chronic obstructive pulmon asthma, emphysema)	ary diseas	se, chr	onic bronchitis,
Arthritis of Hips:	O No		
	O Yes	O No	○ Yes
Arthritis of Knees:	O No		
	O Yes	$\bigcirc$ No	○Yes



S	tudyID	



Arthritis of hands or arms:	O 17-	(Current	ly under Trmt)
Arthritis of hands of arms.		0	
	○ Yes	O No	○ Yes
Osteoarthritis:	O No		
	O Yes	ONo	○ Yes
Rheumatoid arthritis:	O No	1	
Riemiatora artificis.		0 17-	O W = =
	() Yes	ONo	O Yes
Overactive thyroid:	O No	1 1 1 4	
or Grave's disease	() Yes	O No	O Yes
High blood pressure:	O No		***************************************
-	O Yes	O No	O Yes
Underactive thyroid:		<b>0</b>	
0.1202210 0.1,10221		0 17-	O V
W	O Yes	ONo	O Yes
Hypogonadism:		3 1 3 3 4	
(low blood testerone)	_	ONo	O Yes
Kidney stones:	O No	1 1 1 1 1	
	O Yes	O No	O Yes
Chronic kidney disease:	O No	f	
(or kidney failure)	O Yes	O No	○ Yes
Intestinal problems:	O No		
(colitis)	O Yes	O No	O Yes
Stomach or duodenal ulcer:	O No		
	O Yes	O No	○ Yes
Hepatitis:	O No		
•	O Yes	O No	O Yes
Cirrhosis:		0110	·····
CIIIIOSIS.		0.37-	O **
Banana and and and an	O Yes	O No	O Yes
Diverticulitis(osis):	_		
	O Yes	O No	O Yes
Gall bladder stones:	O No		
(or inflammation)	O Yes	O No	O Yes
Seizures:		1	
DELLATES.		0.37=	Over
	O Yes	ONo	() Yes



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	(Currently under T'rmt)
Glaucoma: O No	(00000)
○ Yes	○ No ○ Yes
Cataracts: O No	
O Yes	○ No ○ Yes
Diseases of the retina: O No	
(macular degeneration, $\bigcirc$ Yes detached retina)	○ No ○ Yes
Poor vision: O No	
O Yes	○ No ○ Yes
Osteoporosis: O No	
O Yes	○No ○Yes

- 2. Have you ever been told you had cancer? ONo OYes (excluding basal cell skin cancer)
- 3. During a typical night in the last year, how many times did you usually wake up to urinate?
  - O Never
  - O Once

O Twice

O Three times

O More than three times

If more than once:

- 3a. How old were you when you first began waking up to urinate more than once a night on a regular basis?
  - OLess than 30
  - 030 39
  - 040-49
  - 050-59
  - 0 60-69
  - 070 or older



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- 4. Over the past month or so, how often have you had to urinate again less than two hours after you finished urinating?
  - O Not at all
  - OLess than 1 time
  - O Less than half the time
  - O About half the time
  - O More than half the time
  - O Almost always
- 5. Over the past month or so, how often have you found that you have stopped and started again several times when you urinated?
  - O Not at all
  - Oless than 1 time
  - O Less than half the time
  - O About half the time
  - O More than half the time
  - O Almost always
- 6. Over the past month or so, how often have you found it difficult to postpone urination?
  - O Not at all
  - OLess than 1 time
  - Oless than half the time
  - O About half the time
  - O More than half the time
  - O Almost always



		st	udy	ID		

- 7. Over the past month or so, how often have you had a weak urinary stream?
  - O Not at all
  - OLess than 1 time
  - OLess than half the time
  - O About half the time
  - O More than half the time
  - O Almost always
- 8. Over the past month or so, how often have you had to push or strain to begin urination?
  - O Not at all
  - OLess than 1 time
  - OLess than half the time
  - O About half the time
  - O More than half the time
  - O Almost always
- 9. Has a doctor ever told you that you had a problem with your prostate?

ONo OYes

10. Has a doctor ever told you that you had an enlarged prostate or benign prostatic hypertrophy?

ONo OYes

	!	
10a. If yes, how old	were you when a doctor fi	rst told you that you
had this problem?	O Less than 30	
	○ 30-39	
	O 40-49	
	○ 50-59	
	O 60-69	
	○70 or older	
	0	



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11.	Has	a	doctor	ever	told	you	that	you	had	an	inflamed	prostate	or
pros	stati	Lti	is?										

ONo OYes

				1					
11a. If yes,	how old	were yo	u when	a doctor	first	told	you	that	you
had this problem?	lem?		) Less	than 30					
			⊃ 30-39						
			⊃ 40-49						
			○ 50-59						
			O 60-69						
			070 or	older					
			○ 70 or	older					

12. Have you taken the drug finasteride (PROCAR) for prostate problems?

 $\bigcirc$  No

O Yes, but not currently

O Yes, currently

O Don't know

13. Have you ever had any of the following surgical procedures of the prostate?

Biopsy: O No

O Yes

O Don't know

(Transurethral resection of the prostate)

TURP: O No

O Yes

O Don't know

Prostatectomy for benign disease:

O No

O Yes

O Don't know



StudyID										

Surgery	for prostate cancer:
	O No
	O Yes
	O Don't know
Prostate	surgery, any other kind:
	O No
,	O Yes
,	ODon't know
13a. If you	n have had any of these procedures, how old were you when you
had any of	these procedures for the first time?
	O Less than 30
	O 30-39
	O 40-49
	O 50-59
	O 60-69
	O 70 or older
14. Have yo	ou had a vasectomy; that is, a sterilization procedure for
men?	O No (Go to 15)
	○ Yes
	14a. How old were you when you had a vasectomy?
	O Less than 25
	○ 25-34
	○ 35-44
	○45 or older



StudyID									

15. During the past thre	ee years, have you had a digital rectal exam?
	) No
C	Yes, once
	Yes, more than once
	Don't know
16. During the past three prostate cancer; for example 16.	ee years, have you had a blood test for ample, a PSA?
	) No
C	Yes, once
C	Yes, more than once
	)Don't know
17. During the past 12 m	months, have you been hospitalized overnight?
	O No
	O Yes
	O Don't know
17.a If yes, how many dovernight?	ifferent times have you been hospitalized One
	O Two or three
	O Four or five
	O Six or more



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C	Cancer Risk Baseline Questionnaire								
	Fracture History								
The following section asks about broken bones in yourself or family members.									
1. Has a doctor ever	er told you that you broke or fractured a bone?								
ONo (Proceed to question 2)									
O Yes									
la. Has a doctor eve	er told you that you broke or fractured a HIP?								
O No	_								
O Yes									
broke or fractured	How old were you when you broke or fractured your hip? If you broke or fractured your hip more than once, please tell me how old you were each time you broke your hip.								
Age (years)	How did you break your hip at this age?								



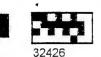
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1b. Has a doctor ever WRIST or FOREARM?	told you	that you h	oroke or fr	actured your	r
O No					
O Yes					
How old were you when forearm? If you broke once, please tell me it these bones.	or fractu how old you	red your w u were ead	vrist or fo ch time you	prearm more to broke one o	of
Age (years) How d	id you bre	ak your w	rist/forear	cm at this ac	ge?
	<del> </del>				
			T I I T		
1c. Has a doctor ever	told you	that you k	roke or fr	actured wou	- CDTNES
O No	oota you	chac you i	orone or in	accured you	L DEINE:
_					
O Yes					
How old were you whe broke or fractured y					
old you were each ti				ase cell me	now
	_			+	- 2
Age (years)	HOW GIG 3	you break	Your spine	at this age	<del></del> -
<u> </u>					
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ra. mas a doctor ever	told you that you broke or fractured your SHOULDER
or COLLAR BONE?	○ No
	○ Yes
How old were you whe	en you broke or fractured your shoulder/collar
	r fractured your shoulder/collar bone more
than once, prease te this bone.	ell me how old you were each time you broke
Age (years) How	w did you break your shoulder/collar bone at this age?
L	
le Has a doctor ever	told you that you broke or fractured your HPDFP
le. Has a doctor ever ARM?	told you that you broke or fractured your UPPER
	O No
	•
	O No
ARM?  How old were you whe	O No O Yes  In you broke or fractured your upper arm? If
ARM?  How old were you whe you broke or fractur	O No O Yes  In you broke or fractured your upper arm? If ed your upper arm more than once, please tell
ARM?  How old were you whe you broke or fractur me how old you were	O No O Yes  In you broke or fractured your upper arm? If your upper arm more than once, please tell each time you broke this bone.
ARM?  How old were you whe you broke or fractur me how old you were	O No O Yes  In you broke or fractured your upper arm? If ed your upper arm more than once, please tell
ARM?  How old were you whe you broke or fractur me how old you were	O No O Yes  In you broke or fractured your upper arm? If your upper arm more than once, please tell each time you broke this bone.
ARM?  How old were you whe you broke or fractur me how old you were	O No O Yes  In you broke or fractured your upper arm? If your upper arm more than once, please tell each time you broke this bone.
ARM?  How old were you whe you broke or fractur me how old you were	O No O Yes  In you broke or fractured your upper arm? If your upper arm more than once, please tell each time you broke this bone.
ARM?  How old were you whe you broke or fractur me how old you were	O No O Yes  In you broke or fractured your upper arm? If your upper arm more than once, please tell each time you broke this bone.
ARM?  How old were you whe you broke or fractur me how old you were	O No O Yes  In you broke or fractured your upper arm? If your upper arm more than once, please tell each time you broke this bone.
ARM?  How old were you whe you broke or fractur me how old you were	O No O Yes  In you broke or fractured your upper arm? If your upper arm more than once, please tell each time you broke this bone.



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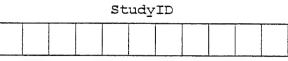
	told you that you broke or fractured your RIBS,
CHEST, OR STERNUM?	ONo
	O Yes
	you broke or fractured your ribs, chest, or or fractured one of these bones more than
	how old you were each time you broke one of
these bones.	
	did you break your ribs, chest or sternum at this
Age (years)	
lg. Has a doctor ever	told you that you broke or fractured your UPPER
LEG?	O No
	O Yes
	0 163
How old wore you wh	on you hashe on fractioned your surround 1 and Tf
you broke or fractu	en you broke or fractured your upper leg? If red your upper leg more than once, please tell
	each time you broke this bone.
Age (years)	How did you break your upper leg at this age?



StudyID										

1h. Has a doctor ever	told you that you broke or fractured your KNEE or
	○ No
	O Yes
cap? If you broke	when you broke or fractured your knee or knee or fractured your knee or knee cap more than me how old you were each time you broke this
Age (years) Ho	w did you break your knee or knee cap at this age?
li. Has a doctor ever LEG?	told you that you broke or fractured your LOWER
	O No
	O Yes
you broke or fractome how old you were	nen you broke or fractured your lower leg? If ured your lower leg more than once, please tell e each time you broke this bone.
Age (years)	How did you break your lower leg at this age?
<del></del>	





	told you that you broke or fractured your ANKLE,
FOOT, or TOES?	O No
	○ Yes
How old were you w	hen you broke or fractured your ankle, foot, or
toes? If you broke	or fractured your ankle, foot or toes more than
once, please tell: bone.	me how old you were each time you broke this
	did one bush were suble for the first of the
Age (years) How	did you break your ankle, foot or toes at this age?
<pre>1k. Has a doctor eve FINGERS?</pre>	er told you that you broke or fractured your HAND or
I INOBINO.	O No
	O Yes
	en you broke or fractured your hand or fingers?
	ctured your hand or fingers more than once,
prease terr me now o	old you were each time you broke this bone.
Age (years) Ho	w did you break your hand or fingers at this age?
inge (years)	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -



	StudyID	

11. Has a doctor ever told you that you broke or fractured a bone that
is not on this list? ONo
O Yes
If yes, what bone:
How old were you when you broke or fractured this bone? If you broke or fractured this bone more than once, please tell me how old you were each time you broke this bone.
Age (years) How did you break this bone at this age?
2. Was your natural mother ever told by a doctor that she had osteoporosis, sometimes called thin or brittle bones? Please answer for your natural mother—the mother who gave birth to you.  ONO OYES ODOn't Know
3. Did your natural mother ever break or fracture a bone? Please answer for your natural motherthe mother who gave birth to you.
O No O Yes O Don't Know
3a. Did your natural mother ever break her hip?
O No O Yes O Don't Know
3b. Did your natural mother ever break her wrist?
ONo OYes ODon't Know



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3c. Did your natural mother ever break her spine?	
ONo OYes ODon't Know	
3d Did your patural methor ever break a base and line a	
3d. Did your natural mother ever break a bone not listed above?	
O No O Yes O Don't Know	
If yes, what bone:	

4. Is your natural mother still alive?

	O No
	O YesHow old is your natural mother now?
	O Don't Know years
How old	was your natural mother when she died?

5. Was your natural father ever told by a doctor that he had osteoporosis, sometimes called thin or brittle bones?

ONo OYes ODon't Know

6. Did your natural father ever break or fracture a bone?

years

O No O Yes O Don't Know

- 6a. Did your natural father ever break his hip?

  ONo OYes ODon't Know
- 6b. Did your natural father ever break his wrist?

  ONO OYes ODon't Know



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Bone Mineral Density, Sex Steroid Gen Cancer Risk Baseline Ques			, and	Prost	cate	<del></del>
6c. Did your natural father ever break	his s	pine	?			
O No O Yes O Don't Know						
6d. Did your natural father ever break		e not	t liste	ed abo	ove?	
ONo OYes ODon't	Know					
Please specify:						
7. Is your natural father still alive?						
OYesHow old is	your n	atur	al fat	her n	iow?	
ODon't Know			7			
		L_	year	5		
How old was your natural father when he	e died	?				
years						
8. How many full brothers do you have?						
(These are brothers related by blood, not )	half-b	roth	ers or	step	-brot	hers.)
8a. Did any of your full brothers ex fracture his hip? O No	ver bre	eak	or			
O Yes						
O Don't Know						
·						
First name	Age wh	en b	oroken			
	L					



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	Bone Mineral Density, Sex Steroid Ge Cancer Risk Baseline Que	enes, Race, and Prostate	
	8b. Did any of your full brothers fracture his wrist?  ONO OYes ODon't Know  First name		
9.	How many full sisters do you have		
	9a. Did any of your full sisters ex fracture her hip?  O No  O Yes  O Don't Know		
	First name	Age when broken	
	1	l ·	

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Cancer Risk Baseline	Questionnaire
<pre>9b. Did any of your full s fracture her wrist?</pre>	sisters ever break or
○ No	
O Yes	
O Don	't Know
•	
First name	Age when broken



	 ے د	udy	<u>-1</u>		 

# Family History

This section a	sks about vour fami	lv medi	cal historv.	
1. How many brothers	and half-brothers	do you h	nave?	
○ None	OFour			
○ One	O Five or more			
$\bigcirc$ Two	ODon't know			
O Three	e			
2. How many sisters a	and half-sisters do	you hav	e?	
○ None	O Four			
One	O Five or more			
O Two	O Don't know			
O Three				
3. How many sons do yo	u haroa 4 Ha	. manır d	aughtore do v	ou barro?
-	d Haver 4. Ho			ou nave:
O None O Three			O Three	
One O Four		O One	O Four	
O Two O Five or r	nore	O Two	O Five or mor	e
5. Have any of your pa or half-sisters ever h exception of basal cel	een diagnosed with			
	O No			
	O Yes			
	O Don't Know			
6. Have any of your pa or half-sisters ever h				s, sisters
	O No			
	O Yes			
	O Don't Know			



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The following questions ask about relatives who may have had cancer.

7. Have any of the following relatives ever had cancer: father, mother, son, daughter, brothers, sisters, half-brothers, or half-sisters? Please tell me about any episodes of cancer except basal cell skin cancer.

	(Code)	(Code)	(Years)
1st Relative	Relationship	Type of Cancer	Age
	-		
2nd Relative	Relationship	Type of Cancer	Age
3rd Relative	Relationship	Type of Cancer	Age
4th Relative	Relationship	Type of Cancer	Age
5th Relative			
	Relationship	Type of Cancer	Age
6th Relative	Relationship	Type of Cancer	Age
7th Relative	Relationship	Type of Cancer	Age
8th Relative	Relationship	Type of Cancer	Age



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#### Health Habits

The following section asks about some of your health habits.

<pre>1. Have you ev longer?</pre>	ver smoked cigarettes regularly for six months or
O No	
	la. At what age did you start smoking cigarettes regularly?  years
	lb. During periods when you smoked, how many cigarettes did or do you usually smoke per day?
	O 1-10
	O 11-20
	○ 21-30
	○ 31-40
	O 41-60
	O 61-80
	O 81 or more
•	1c. Do you smoke cigarettes regularly now?
	○ No ○ Yes
	ld. At what age did you stop smoking cigarettes
	regularly?
	years

- 2. Do you now or did you ever smoke a pipe regularly for a year or longer?
- O I never smoked a pipe regularly for a year or more.
- O I did smoke a pipe regularly for more than a year, but currently I do not smoke a pipe.
- O I currently smoke a pipe.



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3. Do you now or did you longer?	u ever smoke cigars regularly for a year or
OI never smoked cigars reg	gularly for a year or more.
OI did smoke a cigars regu	ularly for more than a year, but currently I do not smoke cigars.
OI currently smoke cigars	pipe.
4. On average, how many your TEEN-AGE years?	glasses of milk did you consume per day during
O none	
O less	than 1 glass per day
Oone	glass per day
O two	glasses per day
O three	e or more glasses per day
5. On average, how many your TWENTIES?	glasses of milk did you consume per day in
O none	
O less	than 1 glass per day
O one	glass per day
O two	glasses per day
O thre	e or more glasses per day
	ny glasses of milk did you consume per day in
your FIFTY'S?	ue
○ les	ss than 1 glass per day
O one	glass per day
O two	glasses per day
O thr	ree or more glasses per day
O not	c applicable
7. On average, how man	ny glasses of milk do you consume NOW?
O nor	ne ne
O les	ss than 1 glass per day
O one	e glass per day
O two	o glasses per day
O thi	ree or more glasses per day
Ono	t applicable



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	you currently drink regular coffee? (Not decaffinated)
O No	O Yes
	8a. How many cups of regular coffee do you drink per day?
	cups
9. Do	you currently drink regular tea?
O No	O Yes (Not herbal or decaffinated)
	9a. How many cups of regular tea do you drink per day?
	cups

10. Do you currently drink sodas that contain caffeine such as Pepsi, Coca-Cola, Tab, and Mountain Dew?

ONo OYes 10a. How many cans of caffeinated soda do you drink per day? cans

11. Have you ever consumed alcohol on a regular basis?

ONo OYes (Drinking at least once a week for 6 months or more) 11a. How old were you started drinking alcohol on a weekly basis?

11b. For how many years have you or did you comsume alcohol on a weekly basis?

years

years



StudyID											

11c.	How many alcoholic drinks per week did you or do you consume?
	(One drink = 12 oz. of beer, 4 oz. of wine, or 1.5 oz. of hard liquor)
	drinks per week



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Bone Mineral Density, Sex Steroid Genes, Race, and Prostate Cancer Risk Baseline Questionnaire

## Physical Activity

The next section asks about physical activity and exercise.

1. How many hours per week did you usually spend WALKING at age:

14-17 years (high school):

00 hrs/week 0<1 hr/week 01-3 hrs/week 04-6 hrs/week 0>6 hrs/week

18-21 yrs. (college):

00 hrs/week 0<1 hr/week 01-3 hrs/week 04-6 hrs/week 0>6 hrs/week

22-29 yrs.:

00 hrs/week 0<1 hr/week 01-3 hrs/week 04-6 hrs/week 0>6 hrs/week

30-39 yrs.:

00 hrs/week 0<1 hr/week 01-3 hrs/week 04-6 hrs/week 0>6 hrs/week

40-49 yrs.:

O 0 hrs/week O <1 hr/week O 1-3 hrs/week O 4-6 hrs/week O >6 hrs/week

50+ yrs.:

00 hrs/week 0<1 hr/week 01-3 hrs/week 04-6 hrs/week 0>6 hrs/week

Next, I will ask you to consider the time you have spent doing all other common activities and/or sports EXCEPT walking. (These activities may include hiking; jogging or running; swimming; sking; bicycling; skating; raquetball; squash; badminton; any dancing, including exercise classes such as aerobic dance; gardening; golf, with or without a cart; bowling; rowing; shuffleboard; canoeing; calisthnenics; softball; field hockey; basketball; tennis; weightlifting; nautilus; volleyball; horseback riding; or any other).

2. How many hours per week did you regularly spend participating in the above activities between the ages of:

14-17 years (high school):

00 hrs/week 0<1 hr/week 01-3 hrs/week 04-6 hrs/week 0>6 hrs/week

18-21 yrs. (college):

00 hrs/week 0<1 hr/week 01-3 hrs/week 04-6 hrs/week 0>6 hrs/week



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Bone Mineral Density, Sex Steroid Genes, Race, and Prostate Cancer Risk Baseline Questionnaire

22-29 yrs.:

00 hrs/week 0<1 hr/week 01-3 hrs/week 04-6 hrs/week 0>6 hrs/week

30-39 yrs.:

00 hrs/week 0<1 hr/week 01-3 hrs/week 04-6 hrs/week 0>6 hrs/week

40-49 yrs.:

00 hrs/week 0<1 hr/week 01-3 hrs/week 04-6 hrs/week 0>6 hrs/week

50+ yrs.:

O 0 hrs/week O <1 hr/week O 1-3 hrs/week O 4-6 hrs/week O >6 hrs/week

3. In general, how many hours per day do you usually spend watching television?

4. Over this past year, have you spent more than one week confined to a bed or chair as a result of an injury, illness, or surgery?

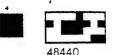
ONo OYes

hours

4a. How many weeks over this past year were you confined to a bed or chair?

weeks

- 5. Do you have difficulty doing any of the following activities?
  - a. Getting in or out of bed or a chair: O No O Yes
  - b. Walking across a small room without resting: O No O Yes
  - c. Walking for 10 minutes without resting: () No () Yes



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L			<u> </u>		<u></u>						
d	G€	ene	s,	Ra	ce,	a	nd	Pro	stat	te	

6. Did you ever compete in an individual or team sport (not including any time spent in sports performed during school physical education classes)?

O No	O Yes
	6a. How many total years did you participate in competitive sports?
	Competitive sports:
	years



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## Weight Loss

The following section asks about losing weight.

Are you currently trying to lose weight?

 $\bigcirc$  No

O Yes

If yes, what method	ods are you using to lose	e weight?
Diet: O No	Diet pills: O No	Diet liquids: () No
○ Yes	() Yes	O Yes
		Other: O No
Exercise: O No	Diet program: O No	O Yes
O Yes	O Yes	
t		If other, specify:

2. The next question concerns any weight you have lost ON PURPOSE since you turned 50. Have you lost...

50+ lbs.:

O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times

20 to 49 lbs.:

O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times

10 to 19 lbs.:

O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times

5 to 9 lbs.:

O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times



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				1								

3. The next question concerns weight you have lost WITHOUT TRYING since you turned 50. Have you lost...

## 50+ lbs.:

O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times

20 to 49 lbs.:

 $\bigcirc$  Never  $\bigcirc$  1-2 times  $\bigcirc$  3-4 times  $\bigcirc$  5-6 times  $\bigcirc$  7+ times

10 to 19 lbs.:

O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times

5 to 9 lbs.:

O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times

- 4. The next question concerns any weight loss of 20 or more pounds since you turned 50. Have you lost 20 or more pounds by using:
- a. diet pills:

O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times

b. a liquid diet:

O Never 01-2 times 03-4 times 05-6 times 07+ times

c. weight loss program:

O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times

d. starvation or fasting:

O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times

e. other low calorie diet:

O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times

f. exercise:

O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times

g. depression or stress:

O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times

h. stomach or intestinal surgery:

O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times

i. illness:

O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times



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- 5. The next question concerns any weight loss of 20 or more pounds you may have experienced between the ages of 40 and 49. Did you lose 20 or more pounds by using:
- a. diet pills:
- $\bigcirc$  Never  $\bigcirc$  1-2 times  $\bigcirc$  3-4 times  $\bigcirc$  5-6 times  $\bigcirc$  7+ times
- b. a liquid diet:
- O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times
- c. weight loss program:
- O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times
- d. starvation or fasting:
- O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times
- e. other low calorie diet:
- O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times
- f. exercise:
- O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times
- g. depression or stress:
- O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times
- h. stomach or intestinal surgery:
- O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times
- i. illness:
- O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times
- 6. The next question concerns any weight loss of 20 or more pounds you may have experienced between the ages of 18 and 39. Did you lose 20 or more pounds by using:
- a. diet pills:
- O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times
- b. a liquid diet:
- O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times
- c. weight loss program:
- O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times
- d. starvation or fasting:
- $\bigcirc$  Never  $\bigcirc$  1-2 times  $\bigcirc$  3-4 times  $\bigcirc$  5-6 times  $\bigcirc$  7+ times



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- 6. (18 and 39 cont'd)
- e. other low calorie diet:
- O Never 01-2 times 03-4 times 05-6 times 07+ times
- f. exercise:
- O Never 01-2 times 03-4 times 05-6 times 07+ times
- g. depression or stress:
- O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times
- h. stomach or intestinal surgery:
- O Never 01-2 times 03-4 times 05-6 times 07+ times
- i. illness:
- O Never O 1-2 times O 3-4 times O 5-6 times O 7+ times
- 7. People's weight changes during their adult lives. During your ADULT life, would you say that:
- O Your weight has stayed about the same (within 10 lbs.)
- O You have had a gradual gain in weight (more than 10 lbs.)
- O You have had a gradual loss in weight.
- O You have had a marked weight loss and kept it off.
- O Your weight has repeatedly gone up and down.



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Bone Mineral Density, Sex Steroid Genes, Race, and Prostate Cancer Risk Baseline Questionnaire

## Medication Inventory Form

The following questions in this section ask about the medicines you take. As part of this study, we are examining prescription and over-the-counter medications used by study participants. These include pills, dermal patches, creams, salves, injections, inhalers and suppositories.

1. Are these all the prescription and non-pr	rescription	on medica	tions
that you took in the last 30 days?			
O No O Yes O Took no medicine			
If no, subject called and MIF administered:	/	/	
	mo	da	Уr

First we will consider medicine for arthritis, headaches, and other aches and pains. Please look at this list of medications.

ASPIRIN
ASPIRIN PLUS CODEINE
ANACIN
ASCRIPTIN
BUFFERIN
ANOTHER ASPIRIN

2. In the past 12 months, have you taken any of these at least once a week?

ONo OYes

If yes,			week	,	on	average,	did	you
05-7	lays							
01-4	lays							
O Don't	know							



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3. Have you EVER taken any of the medications on this list every day or almost every day for a year or longer? (It does not have to be the same one every day).

ONO OYes

3.a If yes, for how many years did you take one of these every day or almost every day?

yrs

Look at this list of medications for pain, arthritis, headaches and other discomfort.

TYLENOL
TYLENOL PLUS CODEINE
ANACIN III
ACETOMINOPHEN
ANOTHER ASPIRIN SUBSTITUTE

4. In the past 12 months, have you taken any of these at least once a week?

ONo OYes

4.a If yes, about how many days per week , on average, did you take one of these medications?

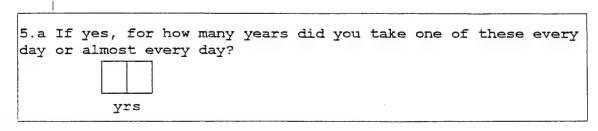
O 5-7 days

O 1-4 days

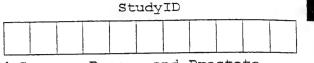
O Don't know

5. Have you EVER taken any of the medications on this list every day or almost every day for a year or longer? (It does not have to be the same one every day).

ONo OYes







Look at this list of medications for pain, arthritis, headaches, and other discomforts:

ADVIL VOLTARIN FELDENE BUTAGEN	DATRIL NALFON PRIOXICAM BUTAZOL	MEDIPREN FENOPROFEN DOLOBID BUTAZONE	NUPRIN NAPROSYN TOLECTIN DIFUNISAL	IBUPROFIN NAPROXEN TOLMETIN AZOLID	PHENYLVUTAZONE MECLOFENMATE MELAMIN	
---	--	---	---	------------------------------------	---	--

6. In the past 12 months, have you taken any of these at least once a week?

ONo OYes

6.a If yes, about how many days per week , on average, did you take one of these medications?

- 05-7 days
- 01-4 days
- O Don't know

7. Have you EVER taken any of the medications on this list every day or almost every day for a year or longer? (It does not have to be the same one every day).

ONo OYes

7.a If yes, for how many years did you take one of these every day or almost every day?

yrs



StudyID								

Look at this list of medications for pain, arthritis, headaches, and other discomforts:

MOTRIN RUFEN ANOTHER PRESCRIPTION IBUPROFIN PRODUCT

8. In the past 12 months, have you taken any of these at least once a week?

ONo OYes

8.a If yes, about how many days per week , on average, did you take one of these medications?

05-7 days

01-4 days

O Don't know

9. Have you EVER taken any of the medications on this list every day or almost every day for a year or longer? (It does not have to be the same one every day).

ONo OYes

9.a If yes, for how many years did you take one of these every day or almost every day?

yrs



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Look at this list of medications for pain, arthritis, headaches, and other discomforts:

SULINDAC
CLINORIL
INDOCIN
INDOMETHACIN

10. In the past 12 months, have you taken any of these at least once a week?

ONo OYes

10.a If yes, about how many days per week , on average, did you take one of these medications?

- 05-7 days
- 01-4 days
- O Don't know

11. Have you EVER taken any of the medications on this list every day or almost every day for a year or longer? (It does not have to be the same one every day).

ONo OYes

11.a If yes, for how many years did you take one of these every day or almost every day?

yrs



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## Prescription Medication

List the name of the prescription medicine, the strength, and the total number of doses taken per day, week or month during the LAST 30 DAYS..

1)	Code	Name		
-,				
	strength:	quantity used:	per: O day O week O month	PRN?  O No  O Yes
	1	Reason for use:	_	
21	Code	Name		
2)				
	strength:		per:	PRN?
		quantity used:	O day O week	O No O Yes
			Omonth	ŧ
	Re	eason for use:	1	
3)	Code	Name		
رد				
			per:	PRN?
Г	strength:	_	$\bigcirc$ day	$\bigcirc$ No
		quantity used:	O week	O Yes
			O month	1
	Rea	ason for use:		



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		Cancer Kisk paseithe Questic	illarie	
	Code	Name		
4)				
	strength:		per:	PRN?
			O day	O No
		quantity used:	O week	O Yes
	1	Reason for use:	O month	
			ı	
5)	Code	Name		7
			per:	PRN?
	strength:		O day	O No
		quantity used:	O week	O Yes
			O month	1
		Reason for use:	0 111011	
<b>6</b> 1	Code	. Name		
6)				
	strength:		per:	PRN?
			O day	O No
		quantity used:	O week	() Yes
		Reason for use:	O month	
7)	Code	Name		
• •				
			per:	PRN?
-	strength:		O day	O No
		quantity used:	O week	O Yes
-	R	eason for use:	O month	1
Γ				
1				



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### Over-the-Counter Medications

Copy the name of the non-prescription medicine, the strength, and the total number of doses taken per day, week or month during the last 30 days. Include aspirin, or aspirin-containing medicines such as Bufferin, Anacin, or Ascriptin, laxatives, sleeping pills, antacids and antihistimines.

1)	Code	Name									
-,											
	strength:	quantity used:	per: PRN? O day O No O week O Yes O month								
Reason for use:											
2)	Code	Name									
-,											
	strength:	quantity used:	per: PRN? O day O No O week O Yes								
		Reason for use:	Omonth								
3).	Code	Name									
	strength:		per: PRN?								
		quantity used:	per: PRN?								
		Reason for use:	○ week ○ Yes ○ month								
			<u> </u>								



SchdAin									

		Cancer Risk Baseline Questionna:	ire	
4)	Code	Name		
-,				
	strength:		per:	PRN?
		quantity used:	O day	ONo
			O week	○ Yes
		Reason for use:	Omonth	1
	Code	Name		
5)				
	strength:		per:	PRN?
		quantity used:	O day	ONo
			O week	O Yes
		Reason for use:	O month	1
			•	
6)	Code	Name		
Ť				
	strength:		per:	PRN?
		quantity used:	$\bigcirc$ day	ONo
		Reason for use:	O week	O Yes
		1.525.1 101 4DC.	O month	ı
•	Code	Name		
7)				
	strength:		per:	PRN?
	strength.		O day	$\bigcirc$ No
		quantity used:	O week	O Yes
		Reason for use:	O month	ı

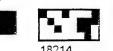


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# Vitamin and Mineral Supplements

List all vitamins, minerals, herbal preparations, and other supplements taken during the last 30 days.

	Code	Name	Quantity used per:	
1)			O day	
			O week	
	Strength:		O month	
			ı	
	Code	Name	Quantity used per:	
2)		Traine	-	
			O day	
			□ week	
	Strength:		O month	
			Quantity	
3)	Code	Name	used per:	
$\sim$				
٠,			O day	
٠,			O day O week	
υ,	Strength:			
<i>-</i> ,	Strength:		O week	
٠,	Strength:		O week	
٠,	Strength:		O week O month	No.
	Strength:	Name	O week O month	No.
4)		Name	O week O month  Quantity used per:	
		Name	Quantity used per:	
	Code	Name	Quantity used per: Oday Oweek	-
		Name	Quantity used per:	
	Code	Name	Quantity used per: Oday Oweek	



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5)	Code  Strength:	Name	Quantity used	per: Oday Oweek Omonth
6)	Code Strength:	Name	Quantity used	per: Oday Oweek Omonth
7)	Code Strength:	Name	Quantity used	per: Oday Oweek Omonth
8)	Code  Strength:	Name	Quantity used	per: Oday Oweek Omonth



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Blood Collection

1. Date blood d	rawn:	<ol><li>Drawn By:</li></ol>
mo da	Yr Yr	
3. Time Drawn:	hr min	O AM O PM

4. How long since you had anything to eat or drink besides water?



5. Have you engaged in any vigorous physical activity in the last eight hours?

ONo OYes

6. Have you taken any aspirin or anti-inflammatory agents in the last forty-eight hours?

ONo OYes





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## Blood Processing

RED TOP TUBES: Red top tubes should be held at room temperature to allow clot formation; they should then be centrifuged for 15 minutes at 1,200 x g (2,400-3,000 RPM). Tubes not centrifuged immediately after clot formation should be refrigerated. After centrifugation, tubes should be refrigerated until serum and clot is aliquoted into the appropriate cryovials and frozen at -70 degrees Centigrade.

LAVENDER and GREEN TOP TUBES: These tubes should be refrigerated immediately or centrifuged. Centrifuge for 15 minutes at  $1,200 \times g$  (2,400-3,000 RPM). Samples should be aliquoted immediately after centrifugation or refrigerated until they can be aliquoted. Freeze aliquots at -70 degrees Centigrade.

	made processed by.	
8.	Time Centrifugation begu	n:
		AM (

min

O PM

7. Blood processed by:

hr

9. Time sample placed in cryovials:

OAM

hr min OPM

10. Time cryovials placed in freezer:

OAM

hr min OPM



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Anthropometry										
1. WAIST (natural waist):										
1st Measurement (cm.):										
2nd Measurement (cm.):										
If the difference between the 1st and 2nd measurements is >3 cm, repeat both measurements.										
Repeat 1st Measurement (cm.):										
Repeat 2nd Measurement (cm.):										
2.ADBOMEN (iliac crest or umbilicus):										
1st Measurement (cm.):										
2nd Measurement (cm.):										
If the difference between the 1st and 2nd measurements is >3 cm, repeat both measurements.										
Repeat 1st Measurement (cm.):										
Repeat 2nd Measurement (cm.):										



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3. HIP (gre	ater trochanter or greatest width of buttocks):								
1st Measur	rement (cm.):								
2nd Measurement (cm.):									
l	If the difference between the 1st and 2nd measurements is >3 cm, repeat both measurements.								
	Repeat 1st Measurement (cm.):								
	Repeat 2nd Measurement (cm.):								
	measure without shoes at the peak of a deep inhalation arpenden Stadiometer):								
Participant	Facing:								
OForward (	)Sideways ()Unable								
	If unable, explain:								
1st Measurement (cm.):  2nd Measurement (cm.):									
1	If the difference between the 1st and 2nd measurements is >4 cm, repeat both measurements.								
	Repeat 1st Measurement (cm.):								
	Repeat 2nd Measurement (cm.):								



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5. BODY WEIGHT (measure without shoes or heavy clothing):					
Participant Weighed: O.No OYes					
If not done, explain:					
1st Measurement (kg.):  2nd Measurement (kg.):					
If the difference between the 1st and 2nd measurements is >4 kg, repeat both measurements.					
Repeat 1st Measurement (kg.):					
Repeat 2nd Measurement (kg.):					



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Bone Density Scan

1. Date of Scan:	2. Performed by:
mo da yr	
3. Have you had any fracture or	replacement of the following:
3.1 Femur?	
○ No	
○ Yes Which Side? ○ Left	O Right O Both
3.2 Hip?	
○ No	
O Yes Which Side? O Left	O Right O Both

- 4. Do you have any metal objects, such as staples or a pacemaker, in the area of the abdomen?

  ONO OYes
- 5. Have you had any of the following tests within the past ten days?

(If yes to any, DEXA will need to be re-scheduled.)

(If hip replacement on both sides, do not do bone scan.)

- a. barium enema: O No O Yes
- b. upper GI X-ray series: O No O Yes
- c. lower GI X-ray series: O No O Yes
- d. nuclear medicine scan: ONo OYes
- e. other tests using dye or radioactive material: O No O Yes



17100							
Bone Mineral Density, Sex Steroid Genes Cancer Risk Baseline Questi		and P	rosta	ate			
6. Bone Density Measurement Completed for:							-
6.1 Hip? O No O Yes							
6.1.1 Scan No:		6.5	Lean	Body	y Ma	ss:	
6.1.2 BMD:			<u> </u>	kg			
6.2 Spine-lateral? () No () Yes		6.6	Perce	nt Bo	ody	Fat:	
6.2.1 Scan No:				<u></u> ].			
6.2.2 BMD:							
6.3 Spine-PA? () No () Yes							
6.3.1 Scan No:							
6.3.2 BMD:							
6.4 Total Body? O No O Yes							
6.4.1 Scan No:		•					
6.4.2 BMD:							
Special Considerations:						,	
			7		1		

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